WHAT IS CLAIMED IS:

1. An isolated GID polypeptide consisting essentially of an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of SEQ ID NO:2,

(b) an amino acid sequence of a fragment of (a), wherein the fragment is biologically active, and

(c) an amino acid sequence that is substantially homologous to (a) or (b), wherein the polypeptide is biologically active.

2. The isolated GID polypeptide of Claim 1 consisting essentially of the amino acid sequence of SEQ ID NO:2.

3. An antigenic fragment of the GID polypeptide of Claim 2.

4. A fragment of the GID polypeptide obtained by cleaving the GID polypeptide of Claim 1 with caspase-3.

5. A chimeric and/or fusion protein comprising the GID polypeptide of Claim 1.

6. A fragment of a GID polypeptide comprising a decarboxylase domain comprising the amino acid sequence of amino acid residues 216-395 of SEQ ID NO:2.

7. A chimeric and/or fusion protein comprising a fragment of a GID polypeptide selected from the group consisting of a decarboxylase domain comprising the amino acid sequence of amino acid residues 216-395 of SEQ ID NO:2; an antigenic fragment of the GID polypeptide, and a fragment obtained by cleaving the GID polypeptide with caspase-3.

8. An isolated nucleic acid encoding a GID polypeptide consisting essentially of an amino acid sequence selected from the group consisting of:

(a) SEQ ID NO:2,

(b) an amino acid sequence of a fragment of (a), wherein the fragment is biologically active, and

(c) an amino acid sequence that is substantially homologous to (a) or (b), wherein the polypeptide is biologically active.

9. The isolated nucleic acid of Claim 8 consisting essentially of the amino acid sequence of SEQ ID NO:2.

10. The isolated nucleic acid of Claim 9 consisting of the nucleotide sequence of SEQ ID NO:1.

11. The isolated nucleic acid of Claim 8 further comprising a heterologous nucleotide sequence.

12. An expression vector comprising the nucleic acid of Claim 8.

13. An expression vector comprising a nucleic acid that encodes a GID polypeptide, wherein the nucleic acid consists essentially of a nucleotide sequence selected from the group consisting of:

(a) the nucleotide sequence of SEQ ID NO:1,

(b) a fragment of the nucleotide sequence of (a) wherein the fragment of the nucleotide sequence encodes a polypeptide fragment that is biologically active, and

(c) a nucleotide sequence that is substantially homologous to the nucleotide sequence of (a) or the fragment of the nucleotide sequence of (b), wherein the nucleotide sequence that is substantially homologous to the nucleotide sequence of (a) or the fragment of the nucleotide sequence of (b) encodes a polypeptide or a fragment of a polypeptide that is biologically active .

14. The expression vector of Claim 13 that comprises a heterologous promoter operatively linked to the nucleic acid.

15. A cell comprising the nucleic acid of Claim 11.

16. The cell of Claim 15 that is a mammalian cell.

17. A recombinant DNA molecule that comprises a heterologous promoter that is operatively linked to an expression control sequence; wherein the recombinant DNA molecule comprises the nucleic acid of Claim 8.

18. A method of making a recombinant GID polypeptide comprising culturing a cell containing the nucleic acid of Claim 11 under conditions that provide for expression of recombinant GID polypeptide by the cell.

19. The method of Claim 18 further comprising the step of purifying the recombinant GID polypeptide.

20. The purified form of the recombinant GID polypeptide of Claim 19.

21. An isolated nucleic acid encoding a fragment of a GID polypeptide comprising the decarboxylase domain that comprises the amino acid sequence of amino acids 216-395 of SEQ ID NO:2.

22. The isolated nucleic acid of Claim 21 further comprising a heterologous nucleotide sequence.

23. An isolated nucleic acid encoding a fragment of the GID polypeptide of Claim 2, wherein said fragment was obtained by cleaving the GID polypeptide with caspase-3.

24. The isolated nucleic acid of Claim 23 further comprising a heterologous nucleotide sequence.

25. An antibody to the GID polypeptide of Claim 1 or to an antigenic fragment of said GID polypeptide.

26. The antibody of Claim 25, selected from the group consisting of a monoclonal antibody, a humanized antibody, a transgenic antibody, and a human antibody.

27. A fragment of the antibody of Claim 26 that binds to the GID polypeptide.

28. A cell line that produces the monoclonal antibody, the humanized antibody, the transgenic antibody, or the human antibody of Claim 26.

29. A solid support comprising the GID polypeptide of Claim 1 or a fragment of the GID polypeptide that binds GNK and/or sGNK.

30. A method of isolating GNK and/or sGNK from a sample that contains GNK or sGNK comprising:

(a) passing the sample over the solid support of Claim 29 under conditions in which GNK and/or sGNK bind to the solid support;

(b) washing the solid support; and

(c) eluting the GNK and/or sGNK, wherein said GNK and/or sGNK are isolated from the sample.

31. The method of Claim 30 wherein the sample is a mammalian tissue sample.

32. A method of detecting caspase–3 activity in a sample comprising:

(a) contacting the sample with the GID polypeptide of Claim 1; and

(b) detecting whether the GID polypeptide is cleaved; wherein the sample is determined to contain caspase–3 activity when the GID polypeptide is cleaved.

33. The method of Claim 32 wherein the sample is a mammalian tissue sample.

34. The method of Claim 32 wherein the cleavage of the GID polypeptide is detected using an antibody.